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ABSTRACT

Part of a larger report on the Four Directions Project, an American Indian technology innovation project, this section includes six "pathfinders" to locating information on Internet resources. The pathfinders were designed by students in the Graduate School of Library and Information Science at the University of Texas at Austin in response to specific requests by educators in reservation schools. The pathfinders are bibliographic instructional aids that outline methods to locate information on topics of interest to a particular client. Each pathfinder includes an introduction that describes the nature of the topic, scope of the pathfinder, assessment of client needs, and steps taken in identifying and evaluating relevant resources; an annotated bibliography of 15-25 resources, including print reference works, monographs, indexes, journal titles, electronic resources, and organizations; and the pathfinder proper, a guide to locating resources on the topic. The pathfinders are: (1) "Internet Resources: A Pathfinder for Beginners" (Ayne Steinkuehler); (2) "How To Select a Search Engine: A Pathfinder" (Orly Zilkha); (3) "Evaluating Internet Resources: Tips for High School Students" (Cheryl Goldenstein); (4) "How To Evaluate Elements of a Web Page: A Pathfinder" (Ann Minner); (5) "Native American Language Resources on the Internet: A Pathfinder" (Daisy Benson); and (6) "A Pathfinder for Introductory HTML Resources" (Lee Bell). (SV)

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ED 460 794

Internet Technology Resources

In: Pathfinders for Four Directions: An Indigenous Educational Model

Dr. Loriene Roy (Comp)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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PATHFINDER

Internet Resources:

A Pathfinder for Beginners

prepared

by

Ayne Steinkuehler

LIS 382L.13

December 3, 1997

The vast worldwide network of computers known as the Internet offers virtually limitless information to anyone with access to a computer and a modem. Despite this potential the Internet is essentially useless if the volume of information retrieved is too overwhelming, or if information can not be accessed due to unfamiliarity with Internet protocols.

The purpose of this pathfinder is to introduce the adult public library patron to print and electronic resources for the efficient retrieval of information. Created for both the novice and experienced Internet user, this pathfinder offers materials useful to a broad spectrum of information needs.

For the novice, information needs include knowledge of Internet service providers and basic Internet navigational skills, like connecting to known URL's and using search engines to perform online subject searches. For the experienced user, who may ask questions regarding information for school research papers, good online sites for children, sites for investment and business opportunities, and information on travel or personal hobbies, in-depth subject guides are necessary.

My search initiated at the University of Texas at Austin's Perry Castendeda library, where I searched the online catalog (UTCAT) under the subject terms "Internet" and "Internet (Computer Networks)--Handbooks, manuals, etc.". This yielded 35 results. To focus my search on materials in public libraries I next examined materials from the Austin Public Library, specifically the Riverside branch and John Henry Faulk. I searched the online card catalog under the term "Internet" and "Internet (Computer Networks)--Handbooks, manuals, etc." and found 27 results. Finally, I examined resources available on the Internet itself,

beginning with the Austin Public Library's home page at http://www.library.ci.austin.tx.us, from which I linked to other sites.

Sources were selected based on the following criteria. I determined whether the material was well written and easy to understand, noted coverage to determine if it was adequately extensive, considered recency (published no earlier than 1994) and variety (both print and online sources were included), and critiqued the advice provided (those offering step-by-step instruction were preferable).

ANNOTATED BIBLIOGRAPHY

Style Manuals:

Gibaldi, Joseph. MLA Handbook for Writers of Research Papers. 4th ed. New York: The Modern Language Association of America, 1995.

Li, Xia, and Nancy B. Crane. Electronic Styles: A Handbook for Citing Electronic Information. 2nd ed. Medford, NJ: Information Today, Inc., 1996.

1. Angell, David. The Internet Business Companion: Growing Your Business in the Electronic Age. Reading, MA: Addison-Wesley Publishing Company, 1995.
ISBN: 0-201-4-40850-3

A practical book aimed at helping the reader establish a cost-effective business presence on the Internet, this pragmatic guide covers service providers, consultants, and other information needed to effectively incorporate a company with the Internet. It would be an extremely useful tool for small companies or individuals running their own businesses.

2. Austin Pubic Library. Hp. 19 Sept. 1997 [last update]. Online. Data Research Associates, Inc. Available: http://library.ci.austin.tx.us/. 10 Oct. 1997.

The homepage of the Austin Public Library system, this web page offers access to information regarding the Austin Public Library system. Its strength as a general Internet resource lies in its links to various online resources, including a comprehensive index to the Internet and sites specifically of interest for public library patrons. Also discusses search engines and issues regarding children and the Internet.

3. Baran, Nicholas. Inside the Information Superhighway Revolution. Scottsdale, AZ: Coriolis Group Books, 1995.
ISBN: 1-883577-10-1

A 'hands on' book teaching novice users about the Internet. It begins with the basics of Internet history and creating an account, then shows users how to find information through basic Internet resources such as UNIX, the World Wide Web, and others. Also offers a useful appendix covering UNIX and its commands, computer viruses, a glossary, and an emoticon dictionary useful for email correspondences.

4. Dikel, Margaret F., Frances E. Roehm, and Steve Oserman. The Guide to Internet Job Searching. Lincolnwood, IL: VGM Career Relations, 1996.
ISBN: 0-8442-8199-2

Discusses the use of online career development resources, bulletin boards, job related sites, and other means of finding employment opportunities online. It also provides information on how to find jobs in various fields, such as government and nonprofit employment. Although it offers basic information on the background and use of the Internet, as well as recommended readings, it is primarily focused on providing opportunities for job searchers already fairly comfortable using the Internet.

5. Earles, William A. Mr. Bill's World. Hp. 12 Oct. 1997 [last updated]. Online. Web Development. Available: http://www.aone.com/~mrbill/. 11 Oct. 1997.

A web site for both children and adults, this is an index to family-friendly web pages. Links are provided to various topics, including education, the Internet (online resources, lessons in basic HTML, downloading, and so on), human and community services, and business. Rated four stars by NetGuide, included as one of NetGuide's one hundred best web sites in 1997, voted part of Microsoft's Best of the Web series and winner of the Digby award, this site offers something for everyone.

6. Ellsworth, Jill H. Education on the Internet. Indianapolis, IN: Sams Publishing, 1994. ISBN: 0-672-30595-X

A wonderful resource for adult users discussing how the Internet is currently used in classrooms, giving examples for future integration of Internet use for education. Covering educational levels from K-12 to college, this book offers help to educators by suggesting specific sites and search strategies. Also discusses issues such as global classrooms. Each specific site offers an address and complete subject description.

7. Evans, James. Law on the Net. Berkeley, CA: Nolo Press, 1996. ISBN: 0-87337-282-4

Discusses legal research on the Internet and how to access it. Lists sites by categories (e.g., civil rights, trade law, tax law) and, within each category, lists the contents of the site, editorial comments, address and access information, and other pertinent information such as fees and contact person (as applicable). Extremely detailed and comprehensive, this is an excellent resource for the layperson interested in legal research of virtually any kind. It does not cover Lexis or Westlaw, but as these are expensive resources not normally used by the general public, their exclusion is not detrimental.

8. Farrell, Paul B. The Investor's Guide to the Net: Making Money Online. New York: John Wiley & Sons, Inc., 1996. ISBN: 0-471-14444-4

Covers investment opportunities on the Internet, both for the individual who wishes to make their own investment decisions and those who choose to align themselves with a broker or

some other commercial financial agency. Discusses how the Internet has come to incorporate itself into financial transactions and examines the myriad of tools available to the online investor, as well as the impact the Internet will have on the financial world at large. Addresses issues and concerns, such as concepts surrounding online investment. The major strength of their book is its hands-on approach, and the available list of Internet addresses and major online sites for the investor.

9. Fergueson, Tom. Health Online. Reading, MA: Addison-Wesley Publishing Company, 1996.
ISBN: 0-201-40989-5

Intended to help people find self-help communities and other online health resources. Focuses on online communities run by laypersons as well as professionals. After discussing the basics of online use, the book offers a step-by-step guide to self-help sources and lists the most useful and important mailing lists, groups, World Wide Web sites, and other Internet resources. Well written with easy to understand instructions.

10. Hahn, Harley. The Internet. Berkeley, CA: McGraw-Hill, 1996.
ISBN: 0-07-882138-X

This text covers the basics of what the general user needs to know about the Internet and its resources. Well written and very thorough, it covers the background of the Internet, including technical details, how it is organized, how to connect, hardware and software, and so on. Also covers Internet resources such as the World Wide Web, email, Usenets, FTP, mailing lists, online chat rooms, Muds, and Telnet, along with others.

11. Kehoe, Brendan, and Victoria Mixon. Children and the Internet. Upper Saddle River, NJ: Prentice Hall PTR, 1996.
ISBN: 0-13-244674-X

A resource covering the basics of Internet use, detailing topics related to the Internet and children. Discusses safety issues and filtering software, drafting acceptable policies for the use of the Internet in schools, the incorporation of the Internet into classroom instruction, and applying for grants to help finance the Internet in schools. Also discusses a number of resources and organizations for K-12 teachers and offers case studies of schools that have incorporated the Internet as a learning resource. Lists some of the best Web sites for children and offers a free trial copy of Cyber Patrol software.

12. Kent, Peter. The Complete Idiot's Guide to the Internet. Indianapolis, IN: Alpha Books, 1994.
ISBN: 1-56761-414-0

A very useful and practical guide for the novice, this book offers pragmatic information on resources like email, FTP, newsgroups, research on the Internet, and other Internet basics. Has an easy to read and accessible layout incorporating icons and a question/answer format. Includes a free disk for Internet connections so users can sample the Internet before paying to connect with a server.

13. Kiley, Robert. Medical Information on the Net: A Guide for Health Care Professionals. London: Churchill Livingstone, 1996.
ISBN: 0-4430-699-4

Although aimed at health care professionals, this book also offers useful information for the non-professional. The main benefit for the layperson is Kiley's list of the top ten medical resources on the Internet. For each of the top ten sites Kiley gives an address, summary of contents, cost, and a three to four paragraph critique. The sites make it easy to find information without getting overwhelmed. The rest of the book will be of little to no use to those not in the health care field, as it deals with professional organizations and sites specifically geared towards professionals that would most likely be too confusing to the non-professional.

14. Kroll, Ed. The Whole Internet: Users Guide and Catalog. Sebastopol, CA: O'Reilly and Associates, Inc., 1994.
ISBN: 1-56592-025-2

A guide for those who are computer literate yet new to the Internet, this book offers information on all basic Internet resources. It is intended for the computer layperson, not computer science professionals. An excellent book that comes very well recommended by reviewers, this resource also offers the nice touch of suggesting where in the book a person should begin reading based on his/her present Internet knowledge and skill level.

15. Levine, John R., and Carol Baroudi. The Internet for Dummies. San Mateo, CA: IDG Books Worldwide, 1993.
ISBN: 1-56884-024-1

An extremely user friendly book for the layperson, this text covers all the basics of Internet topics. Written in plain English and incorporating humor. A great book for the technophile.

16. Maloni, Kelly, Ben Greenman, and Kristin Miller. Net Money: Your Guide to the Personal Finance Revolution on the Information Highway. New York: NY: Random House, 1995.
ISBN: 0-679-75808-9

Offering practical advice regarding doing business online for the average layperson, this book goes far beyond simple online investment as it also identifies financial software, insurance,

travel guides and travel information, buying a car and dealing with real estate, online shopping, business opportunities on the Web, and job markets and other career related information on the Internet. A thorough and excellent resource for financial related matters online.

17. Maxwell, Bruce. Washington Online: How to Access the Federal Government on the Internet. Washington, DC: Congressional Quarterly, 1995.
ISBN: 0-780-64717-0

With detailed information on nearly 300 federal Internet sites and resources, this is an excellent resource. Each listed site offers information such as address, content and tips on searching within the site itself. The book also offers advice on how to begin a search for federal information, giving tips on how to use the available search tools for this purpose. Aimed at a variety of users, from novice to experienced, this book would be extremely useful for those researching government information.

18. Miller, Elizabeth B. The Internet Resource Directory for K-12 Teachers and Librarians, '96/'97 edition. Englewood, CO: Libraries Unlimited, 1997.
ISBN: 1-56308-506-2

A very useful annual directory containing information on the best Internet resources for school librarians, students, and teachers. A selective and evaluative collection of over 900 entries chosen for their educational value, this book is organized by chapters focusing on broad curricular areas. Within each chapter are resources offering a site name, address, path, login, instructions, and contact person (where available). Most useful is the brief descriptive annotations that offer an overview of the resource and a brief list of the site's contents. It does not offer step-by-step instructions, although the information is usable by all but the most inexperienced user.

19. Rosenfeld, Louis, Joseph James, and Martha Vander Kolk. Internet Compendium: Subject Guide to Health and Science Resources. New York: Neal-Schulman Publishers, Inc., 1995.
ISBN: 1-55570-219-8

An extremely useful guide to Internet resources for health and science subjects. Arranged by chapters according to subject matter, each chapter is written by experts and subject specialists within the field. Within each chapter are a series of entries including the name, organization (NASA, for example), URL, and a brief summary and critique of the site. A very functional guidebook, offering both a general orientation to the Internet followed by a cornucopia of resources within specific fields.

20. Sachs, David, and Henry Stair. Hands-On Internet: A Beginning Guide for PC Users. Englewood Cliffs, NJ: PTR Prentice Hall, 1994.
ISBN: 0-13-056392-7

For novice Internet users. Chapters are divided into `sessions' that introduce only one to two new concepts each, taking the reader through a step-by-step process of learning the Internet and its resource tools without becoming overwhelmed. Written for the layperson, this is an excellent resource for people who are uneasy about learning the Internet. A very well organized, systematic tool.

21. Schulman, Martin A., and Rick Schulman. The Internet Strategic Plan: A Step by Step Guide to Connecting Your Company. New York: John Wiley & Sons, Inc., 1997.
ISBN: 0-471-14275-1

Written in a clear and easy to understand manner, Schulman and Schulman guide the user through the process of making informed decisions about the Internet as it relates to business use. Exploring resources, goals and issues regarding those attempting to incorporate the Internet into their business, this book also presents case studies of businesses that have incorporated the Internet. Includes an organization chart with a time line for guidance, along with sample documents.

22. Smith, Richard J., Mark Gibbs, and Paul McFedries. Navigating the Internet. Carmel, IN: Sams.net Publishing, 1995.
ISBN: 0-672-30718-9

This text offers virtually everything a person would want to know about the Internet: history, services, resources, technologies, and so on. Intended for practical advice on navigation and written for the layperson, it is easy to understand and has several added features including a perforated card that can be pulled out for quick reference on Internet commands. Also offers a useful section on testing a user's navigational skill, a glossary, and a gazetteer of Internet resources.

23 Temple, Bob. Sports on the Net. Indianapolis, IN: Que Corporation, 1995.
ISBN: 0-7897-0240

A directory for sports fans as well as a tutorial for new Internet users. The sports information listed ranges from professional sports including baseball, basketball, football and soccer, to `fantasy' sports and non-professional sports settings such as college teams, Olympic information, hobbies and recreational sports.

24. Thompson, Hugh. Internet Resources. Chicago, IL: Association of College and Research Libraries, 1995.
ISBN: 0-8389-7785-5

Comprised of sixteen articles earlier published as a series in the magazine of the Association of College and Research Libraries, this is a useful source for adults wanting to access information on specific topics. Each article addresses a single subject area, including Latin

American studies, architecture, Russian and Eastern Europe studies, women's studies, business, distance education, engineering, literature, economics, health and medicine, ethnic cultures, and space sciences, and lists extensive references for further reading. Not intended for the novice, as it does not cover the basics of Internet use.

Information Resources:

A Pathfinder for Beginners

By: Ayne Steinkuehler

INFORMATION RESOURCES: A PATHFINDER FOR BEGINNERS

By: Ayne Steinkuehler

The purpose of this pathfinder is to help adult public library patrons locate materials online. From novices to experienced users, the following materials will help you find your way on the "information superhighway".

Part I: Drivers Ed

Don't know much about computers? Don't worry! The following books will teach you the basics of using the Internet.

The Internet for Dummies **(Levine, John R.)**

The Complete Idiot's Guide to the Internet **(Kent, Peter)**

The Whole Internet **(Kroll, Ed)**

Part II: The Information Autobahn

Now that you know your way around the Internet, put a shine on your skills by using some of these specialized Internet guides!

Education and Youth

Education on the Internet **(Ellsworth, Jill H)**
For education-related sites from kindergarten to college, this book has the information for you!

Children and the Internet **(Kehoe, Brenda, and Victoria Mixon)**
Discusses issues surrounding children and the Internet. Offers some great sites for kids, too!

The Internet Resource Directory for K-12 Teachers and Librarians **(Miller, Elizabeth B.)**
An annual directory of the best Internet resources for teachers, school librarians, and students.

Legal and Governmental

Law on the Net **(Evans, James)**
Need legal information, but don't know where to start? Never fear! The Internet legal sourcebook is here!

Washington Online **(Maxwell, Bruce)**
Learn about some of the best governmental Internet resources. With nearly 300 sites listed, this is a great way to find government information online!

Finances & Careers

Net Money **(Maloni, Kelly, Ben Greenman, and Kristin Miller)**
From buying a car to online shopping, job markets to real estate, this book has the information! Also discusses online investing.

Investor's Guide to the Net: Making Money Online **(Farrell, Paul B.)**
This book helps the independent investor invest online and access major online investment sites.

The Guide to Internet Job Searching **(Riley, Margaret, Frances Roehm and Steve Oserman)**
Covers bulletin boards, joblists, and other online ways to help you land the job you want.

The Internet Strategic Plan: A Step By Step Guide to Connecting Your Company **(Schulman, Martin A., and Rick Schulman)**
Explores what it takes for a company to incorporate the Internet into their business, including case studies of businesses that have already done so. Includes an organizational chart, timeline, and sample documents to help make the process easier.

Science and Health

Internet Compendium: Subject Guides to Health and Science Services **(Rosenfeld, Louis, Joesph James, and Martha Vander Kold)**
Tons of information on online health and science resources!

Health Online **(Fergueson, Tom)**
A tip-top resource for staying in tip-top shape, this book focuses on self-help resources available online.

Sports

Sports on the Net **(Temple, Bob)**
Covers professional and non-professional arenas, including olympic sports and hobbies.

Etc.

Internet Resources **(Thompson, Hugh)**
Gives information on specific areas of research, including architecture, literature, economics, space sciences, ethnic studies, business, engineering, and Russian and Eastern European studies.

Mr. Bill's World **(http://www.aone.com/~mrbill)**
This award-winning web page offers great links to family-friendly web sites for both children and and adults.

Austin Public Library **(http://www.library.ci.austin.tx.us)**
This site offers links to online resources of interest to the public library patron. Includes a comprehensive index of the Internet and discusses search engines and issues pertaining to children and the Internet. A great place to the public library patron to look for useful links.

If you need further assistance, please contact a librarian.

Bon Voyage: Happy Traveling!

How To Select A Search Engine

A Pathfinder

LIS 387L.13

Dr. Roy

By: Orly Zilkha

October 14, 1997

Search engines help people retrieve specific information from the Web quicker and more efficiently than browsing or "Web surfing." Searching the Internet for specific information without the help of a search engine has been compared to seeking sources in a library without using the library catalog. A search engine can be defined as a Web site that links to a database of Internet files, which in turn consist of other Web sites, news articles from Web-based publications, and postings in Usenet groups. Search engines select which files to retrieve based on the keywords a user enters for his/her search. The earliest search engines made their appearance in 1994, shortly after the World Wide Web was introduced to the public. They now number in the thousands, and vary widely in the areas they cover. Some engines are considered "general" because they retrieve files on any subject, while others focus on certain languages, topics, or geographic locations.

This pathfinder provides bibliographic information and descriptions of resources for students and faculty at the Four Directions Schools who want to learn about evaluating and selecting appropriate engines for their searches. These users would likely benefit most from sources that discussed Web subject directories and general Internet search strategies, as well as search engines. My selection criteria consisted of relevance to the topic, recency (1995 to the present), and whether the information would be accessible in a public or academic library with limited resources. I began searching for sources on the Internet, using the subject directory Yahoo! with the term "comparing search engines." Alta Vista also yielded useful Web sites under "title:evaluating search engines." I then used the online database Bowkers Books in Print to find books available for purchase and got the best results with "search and (Web or Internet)." A subject search of "web information retrieval tools evaluation" in OCLC World Cat produced a

number of relevant materials available in libraries. Finally, I searched Periodical Abstracts to find recent newspaper and magazine articles. I used the subject search "search engines," limited the date range to 1995-1997, and retrieved several articles that discussed particular Internet search engines, directories, and searching on the Web in general. The Web sites listed in the pathfinder itself were ordered according to the range and depth of their coverage. The first sources provide the most general and brief overviews of both search engines and directories. The latter sites give more in-depth information specifically on search engines.

Bibliography

Books:

1. Bates, Mary Ellen. The Online Magazine's Essential Desk Reference for Online and Internet Searchers. Connecticut: Pemberton Press, 1996.

This reference book discusses online information retrieval by examining various news retrieval services, such as Dow Jones, LEXIS-NEXIS, and DIALOG. It also looks at Internet service providers, including America On Line, Compuserve, and Prodigy. A chapter covering the Internet includes a section on popular, general search engines like Alta Vista. This book also has a helpful section at the end which gives tips for effective and efficient online searching. Its primary usefulness derives from allowing readers to see how search engines fit into the broader context of online information searching.

2. Morville, Peter. The Internet Searcher's Handbook. New York: Neal-Schumann Publishers, 1996.

Morville describes how readers can use the Internet for research and reference needs. Chapter Six discusses Internet directories, specifically Biz Web, Open Market's Commercial Sites Index, Trade Wave Galaxy, World Wide Yellow Pages, and Yahoo. The book gives a description, evaluation, and shows the results from a sample search for each directory. The same format is used for the search engines in Chapter Seven.

3. Pfaffenberger, Bryan. Web Search Strategies. New York: MIS Press, 1996.

This guide discusses the online search process by outlining a search's different stages and the types of searches one can conduct online. Chapter Two provides a description and critique of various search engines and directories, and briefly explains how to them. Chapter Four discusses using search engines when very specific information is desired. It gives tips and hints for focusing a search, and advises the reader on what to do if a search yields too many or too few items. Browsing for information and using subject directories like Yahoo and Magellan are covered in Chapter Five.

Catalogs:

4. OCLC WorldCat (FirstSearch database)

WorldCat is an online catalog of materials held in OCLC (Online Computer Library Center) member libraries. The types of materials cataloged include books, periodicals, audiovisual materials, musical recordings, and maps. Some of the many ways users can search for items is by author, title, subject, publisher, accession number, series, and subject headings. Search results are presented with complete bibliographic information and a listing of libraries that have the item. The best search term to use is "web information retrieval tools evaluation" for a list of materials about search engines.

Indexes and Abstracts:

5. Bowkers Books in Print (OVID database)

This is a subject, title, and author index available in print and online. Books in Print covers popular, scholarly, adult, and juvenile books in all subject areas. Books must be published in the United States or only distributed there for inclusion. They also must be currently available for sale to the general public. Books that will be published up to six months in the future are also listed. With the term "search and (Web or Internet)," I got several titles about search engines and searching the Web in general.

6. Periodical Abstracts (OVID database)

Periodical Abstracts is an online database that reviews articles in hundreds of journals and popular and academic magazines. Subjects covered include general interest, business, and current events. Users can search by keywords, author, title, and publication name. They can also limit their search to certain dates and type of publication. A keyword search under "search engines" yielded many articles that describe and compare search engines and directories.

Internet Search Tools:

7. Alta Vista

This very powerful and thorough search engine comes closest to being an index to the Web. Alta Vista's power can be a drawback if the user does not employ the "refine search" features, because the engine will likely retrieve thousands of irrelevant items. Users can narrow their search terms in several ways, including by url, document title, host, images, and newsgroup postings. A title search of "evaluating search engines" retrieved the greatest number of useful sites.

8. Yahoo!

Yahoo! is currently the most popular and best known subject directory on the Web. It lists search results in comprehensive subject hierarchies arranged into four areas: Yahoo categories, Yahoo Web sites, Yahoo's News Events and Chat, and recent news articles. Short descriptions are given for each listed site. Users can add Boolean terms to their searches, and can search for keywords, exact phrases, by URL, and by document title. I got many good sites for search engine comparisons with the exact phrase search "comparing search engines."

Web Sites:

9. Campbell, Karen. "Understanding and Comparing Web Search Tools." 1/97. http://www.hamline.edu/library/bush/handouts/comparisons.html (9/97).

This site, maintained by Hamline University, lists links to documents about understanding and evaluating search engines, and Web search techniques. It includes guides to search engines that categorize, describe, and evaluate the main engines. The documents "Just the Answers, Please," and "Tips on Popular Search Engines" are especially helpful.

10. Eagan, Ann and Laura Bender. "Spiders and Web Crawlers, Oh My: Searching on the World Wide Web." 1996. http://www.library.ucsb.edu/untangle/eagan.html (10/97).

This site explains the differences between search engines and directories in terms of structure and how to search. It also compares the most widely used engines, and provides a short bibliography of articles on Web search tools.

11. Habib, David and Robert L. Balliot. "How to Search the World Wide Web: A Tutorial and Guide for Beginners." 6/25/97. http://www.ultranet.com/~egrlib/tutor.htm (10/97).

Habib and Balliot have designed a tutorial that concentrates on the "essential elements of searching the Web." It includes sections on various search methods, recommended search engines, directories, and multi-engines. Explanations of search operators, suggestions for improving search results, and planning a search are also provided. A glossary of search terms is at the end.

12. Indiana University Bloomington Libraries. "Web Search Tools and Directories." 9/10/97. http://www.indiana.edu/~librcsd/resource/search-list.html (9/97).

This web page provides two charts that list links to commonly used search engines and directories. One of the links at the page's bottom connects to a document entitled "Understanding WWW Search Tools," which describes the features of popular search engines, and gives brief comments and search tips. Another link lists several subject directories with very brief descriptions.

13. Kansas City Public Library Reference Staff. "Introduction to Search Engines." 9/97. http://www.kcpl.lib.mo.us/search/srchengines.htm (9/97).

Reference librarians at the Kansas City Public Library review seven major search engines in terms of scope, interface, logic, and results. Their conclusions are presented in a "feature comparison" chart that also provides links to the search engines examined.

14. Madden, Teri. "Beaucoup!- the Exceptional Way to Search." 12/1/96. http://www.beaucoup.com/engines.html (9/97).

"Beaucoup!" is a huge list of over six hundred engines grouped into several categories, including search engines specifically for media, geographic areas, education, music, literature, science/technology, politics, and employment. This list is available in six different languages.

15. Oakton Community College Library Faculty. "Web Articles on Search Engines." http://www.oakton.edu/~wittman/find/searart.htm (10/97).

This site presents a collection of several articles from online magazines and Web pages that discuss searching on the internet and review various search tools. Some of the documents specifically about search engines include: "The Major Search Engines," "The Search Engine That Could," and "Choose the Best Search Engine."

16. Schroeder, Robert. "Evaluating Internet Search Engines." 2/2/97. http://www.udmercy.edu/htmls/Academics/library/search (9/97).

This site, created by a public services librarian at the University of Detroit Mercy, defines search engines and lists criteria for analyzing them. It also provides links to the search and help pages of several popular engines. The same information is provided for subject directories in a separate link named "Subject Lists."

17. Wilder, Rayette. "Evaluating Search Engines." http://www.foley.gonzaga.edu/search.html (9/97).

An electronic resources librarian at Foley Center Library created this site to provide links to comparisons of the main search engines and directories. It also has direct links to the search screens of widely used search tools, divided into lists of search engines, directories, and meta engines. After accessing the link "Search Engines and Directories,"

the user should click on "Search Engine Resources" for comparisons of and tutorials on search engines.

18. Yahooligans – the Web Guide for Kids
http://www.yahooligans.com/

Yahooligans is a subject directory designed by Yahoo! that retrieves sites specifically for children. The main search page also lists links to topics such as "School Bell," which includes a "homework help" page of sites that can help students in a variety of subjects.

Citation Manuals Used in Bibliography and Pathfinder Document:

Gibaldi, Joseph. MLA Handbook for Writers or Research Papers. New York: The Modern Language Association of America, 1988.

Walker, Janice R. "MLA-Style Citations of Electronic Sources." 8/96. http://www.cas.usf.edu/english/walker/mlas.html (10/97).

How to Select a Search Engine

A Pathfinder

By: Orly Zilkha

Books:

These titles provide a good introduction to online searching in general, and show how using search engines is one of many ways to retrieve information.

1. Bates, Mary Ellen. The Online Magazine's Essential Desk Reference for Online and Internet Searchers. Connecticut: Pemberton Press, 1996.

Presents a broad overview of online searching, with a chapter specifically on search engines.

2. Morville, Peter. The Internet Searcher's Handbook. New York: Neal-Schumann Publishers, 1996.

Reviews how one can use the Internet for research and reference needs, and has chapters that deal specifically with search engines and subject directories.

3. Pfaffenberger, Bryan. Web Search Strategies. New York: MIS Press, 1996.

Outlines the online search process and types of searches possible, and specifically addresses search engines and directories in chapters two, four, and five.

Web Sites:

These sites are all easily accessible through a computer linked to the Internet, and provide both introductory and in-depth material on search engines.

4. Habib, David and Robert L. Balliot. "How to Search the World Wide Web: A Tutorial and Guide for Beginners." 6/25/97. http://www.ultranet.com/~egrlib/tutor.htm (10/97).

A tutorial about Web search strategies, search tools, and search terms. Good introduction to online searching.

5. Indiana University Bloomington Libraries. "Web Search Tools and Directories." 9/10/97. http://www.indiana.edu/~librcsd/resource/search-list.html (9/97).

Provides a simple categorization of search tools and links to introductory pages on Web searching. Gives balanced coverage of both search engines and directories.

6. Eagan, Ann and Laura Bender. "Spiders and Web Crawlers, Oh My: Searching on the World Wide Web." 1996. http://www.library.ucsb.edu/untangle/eagan.html (10/97).

Compares subject directories and search engines, and gives short bibliography for further reading on search engines.

7. Wilder, Rayette. "Evaluating Search Engines." http://www.foley.gonzaga.edu/search.html (9/97).

Contains links to sites that compare major search engines and directories, as well as links to tutorials on using search engines.

8. Kansas City Public Library Reference Staff. "Introduction to Search Engines." 9/97. http://www.kcpl.lib.mo.us/search/srchengines.htm (9/97).

A review of seven main search engines presented in a huge chart.

9. Campbell, Karen. "Understanding and Comparing Web Search Tools." 1/97. http://www.hamline.edu/library/bush/handouts/comparisons.html (9/97).

Lists links to online documents that evaluate and explain various search engines.

10. Schroeder, Robert. "Evaluating Internet Search Engines." 2/2/97. http://www.udmercy.edu/htmls/Academics/library/search (9/97).

Gives criteria for analyzing search engines, and has direct links to the help pages of major engines.

11. Oakton Community College Library Faculty. "Web Articles on Search Engines." http://www.oakton.edu/~wittman/find/searart.htm (10/97).

A substantial list of links to online articles about Web searching and search engines.

12. Madden, Teri. "Beaucoup!- the Exceptional Way to Search." 12/1/96. · http://www.beaucoup.com/engines.html (9/97).

Lists over six hundred general and specialized search engines, arranged into categories. Also includes links to each engine's search page.

Cheryl Goldenstein

Evaluating Internet Resources

Tips for High School Students

Pathfinder for

LIS 382L.13:
Bibliographic Instruction

October 14, 1997

The Internet can serve as a useful research tool for students, bringing to the desktop information from subject experts all over the world. Researchers must keep in mind that almost anyone with the desire and a little bit of knowledge about web publishing can put anything on the Internet.

A number of librarians and educators have created web pages that provide guidance on evaluating Internet resources. The purpose of this pathfinder is to direct high school students to a selection of those sites. While many documents discuss the technical and aesthetic aspects of web site evaluation, this pathfinder focuses on resources concerned with the authority, accuracy, and usefulness of web pages.

My client is the Fond du Lac Education Division in Cloquet, Minnesota. The audience for the pathfinder is high school students at an American Indian school. Students in sixth through eighth grades will also have access to the pathfinder, but I felt that addressing the needs of all the students might make the pathfinder too broad.

I began my search for resources by doing phrase and title searches in HotBot, AltaVista, and Infoseek. I tried variations on "evaluating web sites," "evaluate Internet," "information literacy," and "critical thinking." I found several excellent pages and followed links to others, resulting in a group of about twenty-five resources. Most of the sites were produced by university librarians; only a couple were created by secondary level educators. I tried combining "evaluate" and "sites" with "high school" or "secondary," then with "Native American" or "American Indian." I found one additional K-12 guide, but none specifically for high school or Native American students.

My search for education and Native American sites did lead me to resources that select and categorize sites for students, including "K.I.D.S.," a report for K-12 students produced by the Internet Scout Project. I decided to include a section of similar sites on the pathfinder in order to lead the students to examples of appropriate sites.

A major criterion for inclusion in the pathfinder was that the primary audience for the resource was students—not teachers, parents, or librarians. Because most of the web sites are produced by university libraries, I considered whether pages would be readable by secondary students. The pages needed to

exemplify what their authors preached: inclusion of an author's name or sponsoring organization, revision dates, and content that was credible and supported by other resources. While a couple of the pages are merely checklists, most of the guides offer explanations of concepts, definitions, and examples.

Evaluating information in Internet resources is the primary topic of the pages; most discuss web sites rather than e-mail, newsgroups, or other Internet sources. I included two pages that talk about analyzing information in general and three sites that select resources for students. To help students find more information about evaluating information, I listed three search engines.

This pathfinder pulls together some good web sites, each contributing valuable suggestions that will help Fond du Lac students select appropriate Internet resources for homework assignments.

Bibliography

Sources Used in the Pathfinder

1. Alexander, Jan, and Marsha Tate. "Evaluating Web Resources." *A Modular Approach to Teaching the World Wide Web*. May 1997. http://www.science.widener.edu/~withers/webeval.htm (30 Sept. 1997)

Although this particular page is intended for teachers and librarians, links to student checklists for evaluating different types of web pages are listed right at the top of the page. Checklists are provided for advocacy, business or marketing, informational, news, and personal web pages. Each checklist includes tips for identifying a particular type of page, plus questions about authority, accuracy, objectivity, currency, and coverage. Alexander and Tate also provide PowerPoint presentations on web evaluation, links to related sites, and a bibliography.

2. Argus Associates. "The Argus Clearinghouse." 1997. http://www.clearinghouse.net (11 Oct. 1997)

Argus serves as a directory to selected topical guides on the World Wide Web. Librarians at Argus rate the guides for overall design and organization, how well the guides objectively describe and evaluate their lists of Internet resources, and the extent to which the guides describe their own mission and purpose. An explanation of the rating system is provided, and the site is searchable. Information about the topical guides is arranged by subject area.

3. Digital Equipment. "AltaVista" 1997. http://www.altavista.digital.com (12 Oct. 1997)

AltaVista is a fast search engine, though results sometimes lack relevance or include duplicates. It has many capabilities, such as searching for image files or java applets. Selecting "refine" on the results screen brings up related terms, which can be added to a search strategy. Because AltaVista usually gives me results I find nowhere else, I am including it in the pathfinder.

4. Edwards, Jana. "Tips for Evaluating a World Wide Web Search." May 1997? http://www.uflib.ufl.edu/hss/ref/tips.html (30 Sept. 1997)

This title is somewhat deceptive. Instead of evaluating the search process itself, this page lists guidelines for evaluating the credentials of a web author and sponsoring organization. Other criteria include currency, format, and objectivity. Edwards provides tips for determining whether a web page meets the stated criteria. She does not give a revision date, so I almost excluded her page. (Using Netscape's "View Page Info" feature gave me a possible date.) This guide offers some tips not found on other pages, such as instances when the Internet is a good choice of a research tool.

5. Furey, Doug, et al. "Internet Source Validation Project." April 1996. http://www.stemnet.nf.ca/Curriculum/Validate (29 Sept. 1997)

Students will find lots of definitions and examples on this site. It is part of a project to develop information evaluation guidelines for students at a Newfoundland high school. Instead of using existing web pages as examples, which the authors felt would be unfair to page creators, they created web pages for the project. The seven authors have not revised the page in some time. The information is still useful, but some of the links could be updated.

6. Giese, Paula. "Native American Indian Resources Main Menu." *Native American Indian: Art, Culture, Education, History, Science.* June 1997. http://indy4.fdl.cc.mn.us/~isk/mainmenu.html (4 Oct. 1997)

Giese's site is for Native American educators and students. The pages are full of annotated links to maps, literature, artwork, and other Native American resources. On another site, I read that Giese had passed away. It will be difficult for someone to take over the maintenance of this huge, wonderful site. I am including this resource as an example of a site that selects resources for a Native American audience.

7. Harris, Robert. "Evaluating Internet Research Sources." May 1997. http://www.sccu.edu/faculty/R_Harris/evalu8it.htm (27 Sept. 1997)

Harris focuses on the content of Internet resources. Some of his criteria include reasonableness, quality control, political or religious view, corroboration, and user needs. He also points out that strength in one area—such as a good, reasoned argument—can compensate for lack of a distinguished author or some other weakness. This document is a little longer than others in the pathfinder, which may discourage some students, but his use of examples to explain concepts make this resource appropriate for high school students.

8. Henderson, John. "ICYouSee A to Z: T is for Thinking." *ICYouSee.* Sept. 1997. http://www.ithaca.edu/library/Training/hott.html (30 Sept. 1997)

ICYouSee is a self-guided tutorial to the Internet. "T is for Thinking" offers five criteria for evaluating web pages: accuracy, authority, purpose, details like correct spelling, and whether the web is the best resource for a particular research need. Henderson includes exercises that encourage users to evaluate and compare named web sites. He also suggests some additional resources, many of which are included in this pathfinder. Henderson's snappy writing style, effective page layout, and avoidance of jargon make this a good resource for secondary students.

9. Infoseek. "Infoseek." 1997. http://www.infoseek.com (12 Oct. 1997)

Infoseek is one of the search engines I used to find resources for the pathfinder. I have also listed it in the pathfinder. Infoseek offers several different options for searching, including searching a set of results. I often have to refer to Infoseek's search tips to remind myself of what I can do with this search engine, but I generally get good results with my searches.

10. Internet Scout Project. "K.I.D.S.: Kids Identifying and Discovering Sites." Oct. 1997. http://scout.cs.wisc.edu/scout/KIDS/index.html (9 Oct. 1997)

The K.I.D.S. Report is a list of K-12 Internet resources selected and annotated by students from school districts in Boulder, Colorado, and Madison, Wisconsin. The report is distributed biweekly to subscribers to an electronic mailing list; current and previous reports also appear on the K.I.D.S. web site. Each report centers around a topic, such as "Math Fun" or "Ancient Civilizations." Selecting the "Signpost" link allows the user to search or browse the entire Scout Report web site, which includes other general or subject-specific reports for educators and researchers. K.I.D.S. exemplifies a site that evaluates other sites for a student audience; selection criteria are stated.

11. Kirk, Elizabeth E. "Practical Steps in Evaluating Internet Resources." *Evaluating Information Found on the Internet*. Feb. 1997. http://milton.mse.jhu.edu:8001/research/education/practical.html (25 Sept. 1997)

Kirk asks questions to guide students in determining the author, publisher, and currency of a web document. She offers "if-then" suggestions: if an author's name is not given, consider the publisher of the document. This guide is part of a larger resource on evaluating information, but the lack of white space on the front page may turn some students off. This section can stand alone.

12. Oromondroyd, Joan, Michael Engle, and Tony Cosgrave. "How to Critically Analyze Information Sources." Jan. 1995. http://urisref.library.cornell.edu/skill26.htm (30 Sept. 1997)

This guide from Cornell University Library addresses evaluation of information in general. It explains the difference between primary and secondary resources and tells how to use print resources to learn more about authors or find book reviews. Internet resources are not addressed specifically, but the suggestions in this guide will help students think critically about all sources.

13. Owens, Janet, and Patrick Ragains. "Evaluating Information Sources: "How Can I Tell If This Book or Article Is Any Good?" Jan. 1997. http://gordo.library.unr.edu/~ragains/eval.htm (30 Sept. 1997)

Owens and Ragains offer guidelines for evaluating all types of information, not just books and articles. They encourage the reader to consider context, purpose, and intended audience. Specific suggestions include reading multiple sources to help find biases in sources.

14. Scholz-Crane, Ann. "Evaluating World Wide Web Information." Mar. 1997. http://crab.rutgers.edu/~scholzcr/eval.html (30 Sept. 1997)

Scholz-Crane presents a graphic showing the header, body, and footer of a web page, then tells which part or parts typically contain information that will help the user evaluate the page. The author also includes a short checklist for evaluating web sites. Only two questions concern the content of the page, giving students little guidance in evaluating the information itself.

15. Schrock, Kathleen. "Critical Evaluation Survey: Secondary School Level." July 1997. http://www.capecod.net/schrockguide/evalhigh.htm (21 Sept. 1997)

Schrock has developed surveys for elementary, middle school, and secondary students. Students are asked questions about the currency, authority, and usefulness of web documents. Questions about design and technical elements are also included. Schrock's resource is unique, however, and asks helpful questions appropriate for secondary students.

16. Westera, Gillian. "Evaluating the Documents You Have Found on the World Wide Web." Nov. 1996. http://www.curtin.edu.au:80/curtin/library/staffpages/gwpersonal/senginestudy/zeval.htm (21 Sept. 1997)

Westera's evaluation criteria include currency, authorship, hosting organization, content, and user-friendliness. Her guidance on content evaluation is a little weak, but she avoids Internet and library jargon, producing a document that would be very helpful for secondary students.

17. Wilkinson, Gene L., Lisa T. Bennett, and Kevin M. Oliver. "Evaluating the Quality of Internet Information Sources: Consolidated Listing of Evaluation Criteria and Quality Indicators." May 1997. http://itech1.coe.uga.edu/Faculty/Gwilkinson/criteria.html (30 Sept. 1997)

Eleven criteria are listed for evaluating Internet resources; each criterion is followed by a number of quality indicators presented in the form of questions. The authors list criteria for access, design, and usability features, as well as validity, accuracy, and relevance. A high school student with some experience evaluating web sites could use this as a checklist, but little explanation is provided for the novice evaluator. This document is the result of a project to develop criteria to assist in web resource design at the University of Georgia.

18. Wired Digital. "HotBot: The *Wired* Search Center." 1997. http://www.hotbot.com (11 Oct. 1997)

HotBot allows the user to search by phrase, title, all or any words present, or links to a particular Uniform Resource Locator (URL) by selecting from options rather than needing to remember symbols or commands. Searches may be limited by date or domain as well. Search results may be narrowed by selecting "Modify."

Other Sources Used in Preparing the Pathfinder

1. Drew, Wilfred. "Evaluating Internet Resources." Oct. 1996. http://www.snymor.edu/~drewwe/workshop/evalint.htm (30 Sept. 1997).

Although this page lists criteria for evaluation, it provides little explanatory material. Drew lists tools for evaluating Internet resources, including six sites that select, evaluate, or catalog Internet sites. He also names several listservs and online or print journals that evaluate web sites. His bibliography includes both print and Internet resources.

2. Gibaldi, Joseph. *MLA Handbook for Writers of Research Papers.* 4th ed. New York: The Modern Language Association of America, 1995.

I chose to use the MLA as my style guide. Because it does not sufficiently cover Internet resources, I also used Walker's guide (below).

3. Internet Public Library Teen Division. "Searching and Surfing." Oct. 1997. http://www.ipl.org/teen/ (10 Oct. 1997)

"Real teenagers" help select web sites for this annotated web directory. "Books and Writing," "General Homework," and "Sports" are examples of categories. A selection policy states that some teens or adults may find some of the sites offensive; the "Issues and Conflicts" section does include a sub-category of "Sexuality." I decided other resources might be less controversial.

4. McKenzie, Jamie. "The New 'Home Work:' Parents and Students Together on the Web: A Dozen Information Skills for the Home." *FromNowOn.Org: The Educational Technology Journal*. Feb. 1997. http://FROMNOWON.ORG/feb97/teach.html (30 Sept. 1997).

   The audience for this online article is parents desiring to guide their children in evaluating information on the Internet. McKenzie offers activities and rationale for developing twelve skills—among them, differentiating between fact and opinion and determining relevance. Parents and children are encouraged to complete the activities together.

5. Schrock, Kathleen. "Critical Evaluation Surveys." July 1997 http://www.capecod.net/schrockguide/eval.htm (21 Sept. 1997).

   Shrock's site was one of the few I found for elementary or secondary teachers and students. Unique to her site are surveys that students can print and use as guidelines when viewing web sites; the survey for secondary students is included in the pathfinder. This particular page is directed toward teachers and includes a short bibliography of related web sites.

6. Smith, Alistair. "Criteria for Evaluation of Internet Information Resources." Mar. 1997. http://www.vuw.ac.nz/~agsmith/evaln/index.htm (21 Sept. 1997).

   Smith's primary audience is librarians. His criteria for choosing resources include system requirements, costs, and user friendliness, in addition to concerns about content. This resource has a comprehensive bibliography of evaluation resources available on the web.

7. Stimson, Marg. "Info Zone." May 1997. (11 Oct. 1997)

   The "Info Zone" is a research guide for the Assiniboine South School Division (K-12) in Winnipeg. A section on "choosing" information lists links to electronic citation resources and two of the evaluation resources listed in the pathfinder, but it provides no additional information about evaluating information. Lists of links to topics is one feature of the site. It would be useful for students starting the research process.

8. Univ. of Washington Libraries. "UWiredR545: Teaching Students to Think Critically about Internet Resources." Aug. 1997. http://weber.u.washington.edu/~libr560/NETEVAL/ (21 Sept. 1997)

   An outline for a workshop for faculty and teaching assistants, this resource offers some practice exercises in evaluating web sites. A list of five criteria for evaluating print resources is applied to Internet resources. The authors include a page-long bibliography of web pages. This site provides a good introduction to or brush up session for evaluating print and Internet resources.

9. Walker, Janice R. "MLA-Style Citations of Electronic Sources." Aug. 1996. http://www.cas.usf.edu/english/walker/mla.html (27 Sept. 1997)

   I chose to use this resource as a guide in preparing my list of Internet resources. Some of the other guides suggest indicating that the resource is "Online," but I prefer the cleaner look of Walker's citation style. Walker gives examples for citing different types of electronic resources, such as listservs and telnet sites. I dislike the lack of "place" in this and other citation styles. I think it is helpful to see where the host site is, especially if it is not evident from the URL (Uniform Resource Locator).

The following site has guidelines for evaluating specific types of pages. If you're not sure what type of page you're looking at, this site will even help you figure that out.

Evaluating Web Resources—http://www.science.widener.edu/~withers/webeval.htm
(Hint: Follow the links to checklists for either advocacy, business/marketing, informational, news, or personal web pages.)

After you've had some experience evaluating web sites, you may want to print a copy of one of the following resources for use as a checklist as you evaluate information:

Critical Evaluation Survey: Secondary School Level—
http://www.capecod.net/schrockguide/evalhigh.htm
(This survey also asks some questions about how web pages are designed.)

Evaluating the Quality of Internet Information Sources: Consolidated Listing of Evaluation Criteria and Quality Indicators—
http://itech1.coe.uga.edu/Faculty/Gwilkinson/criteria.html (This is a long list!)

Many web sites evaluate other web sites. They may include links to "What's Cool," give ratings, or list only links to sites that meet certain criteria. When you use a site like this, you should learn how the site authors choose links. Read selection policies, rating guides, or other information about the site. Here are places on the web that select sites for students:

KIDS: Kids Identifying and Discovering Sites—
http://wwwscout.cs.wisc.edu/scout/KIDS/index.html

Cool Sites!

Native American Indian Resources: Main Menu—http://indy4.fdl.cc.mn.us/~isk/mainmenu.html

Argus Clearinghouse—http://www.clearinghouse.net (For some good student resources, follow the "Education" link, then "primary and secondary school.")

Pages are added to and removed from the Internet all the time. If you want to look for more resources to help you evaluate information, try the search engines listed below. Try using "evaluate internet," "evaluating web sites," "information literacy," "selection criteria," or similar terms in a phrase or title search. You can also combine the phrase "subject guides" with "library," "evaluate," or "k12" (+"subject guides" +k12 +evaluate, in AltaVista) for sites that select resources. Use the search tips on each site to improve your search results.

AltaVista—http://www.altavista.digital.com

HotBot—http://www.hotbot.com

Infoseek—http://www.infoseek.com

If you have questions about using a particular resource, ask a librarian or a teacher. They have lots of experience evaluating information! Good luck with your research!

Ann Minner
14 October 1997
LIS 382L.13
Dr. Loriene Roy

The Internet is a new and exciting piece of technology for most people. This phenomena has lead to personal web sites or pages by the score. Usually these pages have no other value than to the authors themselves and of course, their mothers. By following a few simple guidelines, personal web pages can be as useful and informative as the corporate sites on the web. In some cases, this is still not saying too much. Regardless, there are a few key elements that need to be considered when creating or revamping a personal web page.

Elements can be seen as pieces of a puzzle. When these pieces fit together well, the picture that emerges is recognizable and possibly useful. Three primary elements of good web page design are content, structure and appearance. The first, content, refers to the text of the page. It is what is being said, by whom and how. Structure is the second and designates the standards set by the various Hyper Text Markup Language (HTML) incarnations and accepted by the web community. Structure may also address accessibility issues for differently-abled viewers. Appearance, being the third key element, contains all the aesthetic features of color, font, images and background. This category also consists of special effects and fads in web design.

This pathfinder is targeted to new web designers, teachers and librarians who can navigate the web and have a basic understanding of HTML coding. The general audience has ready access to the Internet and a library of resources. The specific audience is Four Directions schools. The scope of the pathfinder starts at the primary level with the potential for advancement through continued independent searching. This information will help web authors clarify what the basics of good web design are, why the trendy special effects are not always the best effects and how to check a personal site for glaring

mistakes. The audience will be able to answer several questions after using this pathfinder. The most obvious is "what are the elements I should pay attention to in the creation of a web page?" and the other is "how does the use of fads effect my page or my audience?"

Most of the resources suggested are Internet based. Search engines as well as specific pages have been included. These were discovered through online searching and evaluating. The basis for inclusion was date of publication (prior to 1996), authority (what are the credentials of the author/designer) and aesthetics (does the page practice what it preaches).

Print sources were found through searches of UTCAT. Search terms used on the online catalog include: web design and internet design. Dr. Mary Lynn Rice-Lively's bookshelves proved even more useful. There are quite a few periodicals being published now that focus upon web design. Several print resources were included for portability.

The pathfinder should prove to be a worthy starting point for some serious web page soul searching. The information is out there, let this point the way.

Bibliography

General Libraries, Reference and Information Services Department. Citing Electronic Sources. Austin: University of Texas, 1996.

Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. 5th ed. Chicago: University of Chicago Press, 1987.

1. Chan, David. "Perspectives - Web-Mastering According to David Chan." Internet. http://www.goldensection.com/perspectives/core.html 2 October 1997.

A personal web site devoted to expressing opinions about the latest design capabilities. Mr. Chan does offer some basic common sense guidelines and a few suggestions for making pages more efficient.

2. Champ, Heather. "How to Design Fantastic Frames." Designer's Corner. Web Developer. November/December 1996. 74-75.

A periodical article to use for more advanced web site structure evaluation. Frames can be a valuable technique to maintain efficiency and constancy in web design. Ms. Champ recommends preparation ahead of time to strategically implement frames.

3. Dame, Brian , Shah, Purvi. "Creating Killer Websites Online." Internet. http://www.killersites.com/1-design/ 8 October 1997.

A web page created from the best-selling book of the same title (minus the "online"). Goes into detail concerning images, graphics and animation. Full of design tips and other links.

4. "'design-o-rama' at glassdog" Internet. http://www.glassdog.com/design-o-rama/indesign.html 2 October 1997.

This is a very useful site starting at the beginnings of HTML and continuing through the design elements of multimedia. The "library" includes a list of print materials and hyperlinks to online Help Files. The site can be downloaded to your discs for portability.

5. Flanders, Vincent. (Copyright © 1996). "Web Pages That Suck" Internet. http://www.webpagesthatsuck.com/home2.html 2 October 1997.

This site's motto is "learn good design by looking at bad design." Mr. Flanders pinpoints and describes some common mistakes and finds examples of them online. This site is fun and informative full of links to other pages.

6. Gillespie, Joe. "Web Page Design, Introduction." Internet. http://ds.dial.pipex.com/pixelp/wpdesign/wpdintro.shtml 2 October 1997.

Aimed at experienced HTML designers but is full of functional tips and guidelines. This site offers a very good explanation of the different browser capability problems. A valuable resource when checking the universal appeal of web design.

7. Grassian, Ester. "Thinking Critically about World Wide Web Resources." Internet. http://www.library.ucla.edu/libraries/college/instruct/critical.htm 6 August 1997.

A list of considerations to apply to web resources for content, authority and structure. Asks all the right questions about what to look for on a web page. Can be printed to two pages for easy portability.

8. Greegard, Samuel. "10 Tips for Getting Net Results." Personnel Journal. March 1996. 28.

This is a list of ten tips for attracting customers, job applicants and team members to your corporate site. These tips translate well to appearance suggestions for personal web pages. Included as a smaller article with "Home, Home on the Web."

9. Greegard, Samuel. "Home, Home on the Web." Personnel Journal. March 1996. 26-33.

Some things to know when designing corporate web sites. Includes mention of staffing, marketing strategy and business content. Most of the tips are relevant to personal design as well.

10. "HotBot." Internet. http://www.hotbot.com/ 10 October 1997.

The engine HotBot allows you to search over 50 million documents in a database with just a few clicks. Searches can be limited by date of publication or continent, and the results can be summarized or listed by URL only. The Cybrarian feature has an entire subject category entitled *Technology*.

11. "LookSmart." Internet. http://www.looksmart.com/ 9 October 1997.

LookSmart engine searches pages selected and reviewed by in-house researchers and then scans the over 30 million pages in AltaVista. The subdirectories of *Computer & Internet*, *Internet & the Web* or *Best & Worst Sites* or *Web Site Design* will take you to over 40 URLs pertaining to web design.

12. McMurdo, George. "HTML for the Lazy." Journal of Information Science. March 1996. 198-212

A journal article discussing introductory HTML and stressing browser-specific difficulties. This is an especially important topic when testing the structure and accessibility of the web page.

13. Oskoboiny, Gerald. "A Kinder, Gentler HTML Validator" Internet. http://ugweb.cs.ualberta.ca/~gerald/validate/ 4 October 1997.

This site checks HTML documents for compliance with HTML standards. Checks overall structure and now complies with the new HTML 4.0 standard. Also includes hyperlinks to valuable HTML links and a HTML help newsgroup.

14. Reed, Thomas. (Copyright 1997) "The Pixel Pen." Internet. http://members.aol.com/pixelpen/index.html 2 October 1997.

A simple web guide to writing web pages for the beginner. Six different "chapters" addressing issues such as basic HTML, file formats, and graphics. Also offers a "checklist" to use when writing HTML.

15. Sweetman, Bill. "Web Site Strategies." Internet World . March 1997. 63-66.

This article targets the corporate web builder but also lists the common mistakes and remedies made by personal web designers. Mr. Sweetman suggests extensive planning before attempting to launching a site.

16. Tennant, Roy. "Web Sites By Design: How to Avoid a 'Pile of Pages'." On The Internet. Syllabus. August 1997. 49-50.

Eight rules to live by concerning web page construction. Mr. Tennant particularly addresses faculty web sites in this article but the rules apply to all. The number one rule is, "Design is secondary to content."

17. Tongue, Thomas. (Copyright 1995-1997). "Doctor HTML v5." Internet. http://www2.imagiware.com/RxHTML/ 30 September 1997.

Doctor HTML is a Web page analysis tool. Enter the URL of the page you want to check and the Doctor will report any mistakes it finds. Advanced Options are available to registered users. Also includes a list of links to other HTML resources.

18. UniPress Software, Inc. "WWWeblint." Internet. http://www.unipress.com/cgi-bin/WWWeblint 2 October 1997.

This is a web/fee based service and requires the programming language Perl. You supply the URL of a page anywhere on the World Wide Web and the Weblint program checks the HTML code. Also allows you to type or copy code onto the page and have it checked.

19. "Web Concept and Design." Internet. http://www.typo.com/wcd/wcd.html 8 October 1997.

A web site based on a hard copy book discussing basic page design, graphics and targeting your audience. The links on this page preview the book including a list of "29 Things to Check Before You Launch." Ordering the book is also an option from this site.

20. "WebCrawler." Internet. http://webcrawler.com/ 11 October 1997.

The search engine WebCrawler has separate categories set aside for large subject areas. *Computer & Internet* leads to a computer related list of links ranging from reviewed sites to news stories. There is also a link to a computer topic chat room.

21. "Yahoo." Internet. http://www.yahoo.com/ 10 October 1997.

This search engine is really an Internet guide that offers subject headings for limiting searches. The *Computers and Internet* category includes subheadings for *Internet* and *WWW* resources.

How to Evaluate Elements of a Web Page

So, you have your own web page now - or you are planning to - and you want to make sure people will take you seriously... you need to check your elements.

What are the *elements* of a web page?

Content = what the page has to say, who says it and how they say it.
Structure = how the page relates to given standards of HTML and accessibility.
Appearance = the color, font, images and capabilities of the page. Appearance also concerns the flexibility of the page's separate elements within other browsers

The most general of sources may lead you directly to the desired element:

Yahoo http://www.yahoo.com/
start with this search engine/directory to find web pages concerning www design. A typical search strategy may be to choose these categories:
Computers and Internet: Internet: World Wide Web: Page Design and Layout:
From there you may choose pages relating to beginning HTML; accessibility; color information and graphics.

More specific pages practice what they preach. These sources offer good advice pertaining to all skill levels and all elements.

LookSmart http://www.looksmart.com/
An Internet Directory that is really three-in-one search engine. If you begin with a search for the words *web page design*, a list of reviewed sites related to your terms will fill the screen. **LookSmart** is also searchable by subject area. Select *Computers & Internet: Internet & the Web* and from here you may search *Best & Worst Sites* or *Web Site Design*.

Web Pages That Suck http://www.webpagesthatsuck.com/home2.html
by Vincent Flanders.
This site's motto is "learn good design by looking at bad design." Mr. Flanders pinpoints and describes some common mistakes and finds examples of them online. Frames are used to navigate the problem areas. This site is fun, informative and organized by "mistake."

"design-o-rama" at glassdog http://www.glassdog.com/design-o-rama/indesign.html 2
This site starts at the beginnings of HTML and continues through elements of multimedia. The "library" includes a list of print materials and hyperlinks to online Help Files. The site can be downloaded to your discs for portability.

Now that you have an idea of what may and may not work overall, find the web pages that have something to say about specific element sources

Content

HotBot http://www.hotbot.com/
Search "the Web", choose "words in the title" and input: *web design content*
This will bring you several options spanning from content evaluation specialists to quick tips so you can evaluate your own content.

If you would like to print a page of guidelines to take with you, see:
Thinking Critically about World Wide Web Resources
http://www.library.ucla.edu/libraries/college/instruct/critical.htm
By Ester Grassian
A list of considerations to apply to web resources for content, authority and structure.

Structure

Doctor HTML v5 http://www2.imagiware.com/RxHTML/
By Thomas Tongue
Once you finish your page, you can check your structure with this validator. Doctor HTML is a Web page analysis tool which retrieves an HTML page and reports on any problems that it finds. Advanced Options are available to registered users.

Appearance

Excite http://www.excite.com/
Using Excites "channels" you can locate many web pages devoted to HTML standards. From the Home page choose the "Computers & Internet Channel", then the "Internet", and finally "Web Page Design". The first ten sites will be the most relevant and the rest are arranged alphabetically.

Web Page Design, Introduction http://ds.dial.pipex.com/pixelp/wpdesign/wpdintro.shtml
Joe Gillespie
Aimed at experienced HTML designers but full of functional tips and guidelines. It offers a very good explanation of the browser compatibility problems.

And hey, you can't always carry your web access around with you so you want some print resources:

For print resources, the online catalog may hold a few surprises. Try searching for a phrase such as: *web design*, or *internet design* as words in a title or by subject.

HTML for the Lazy Journal of Information Science. March 1996. 198-212
By George McMurdo
Addresses the problem of constancy when viewing your page in different browsers.

Web Sites By Design: How to Avoid a 'Pile of Pages Syllabus August 1997. 49-50.
by Roy Tennant
Eight rules to live by concerning web page construction. Mr. Tennant particularly addresses faculty web sites in this article but the rules apply to all.

Check out these book's web sites:

Creating Killer Websites Online http://www.killersites.com/1-design/
by Brian Dame and Purvi Shah.
A web page created from the best-selling book of the same title (minus the "online"). Full of design tips and other links.

Web Concept and Design http://www.typo.com/wcd/wcd.html
Another web site based on a hard copy book. The links on this page preview the book and include a list of "29 Things to Check Before You Launch."

Native American Language Resources on the Internet: a Pathfinder

Daisy Benson
LIS 382L.13
Dr. Loriene Roy
October 21, 1997

The Study of Native American Languages

The study of Native American languages can be approached from many different perspectives. Linguists may study the syntax and grammar of specific languages, anthropologists the cultural context of the language, geographers may map the different linguistic populations, policy makers may look at the legislation that has been enacted on the subject or at the demographics of the speakers, and teachers and the general public may try to combine all of these approaches. Because Native American languages can be studied from so many perspective there is a tremendous amount of information available on the subject. The Internet has made the study of Native American languages more accesable to a greater number of people. The material available ranges from translation pages put up by native speakers to US government documents. The quality of this information varies as much as the type and this pathfinder is designed to help users sort through the available information and find what is most appropraie for their purposes.

The Client and Their Information Needs

My client for this project is the Four Directions project, an online initiative of a group of ten Native American schools. Based on the information available from their websites, I concluded that the information needs of this group are quite varied. The potential users of this information are elementary and secondary school students and their teachers, college level students, adults from the community, and the general public. Because these users are so varied I tried to select materials for the pathfinders that could be used by all groups. Some of the material, such as "GPO Access", may not be suitable for elementary school students but I think that their teachers will find it informative to consulted in preparing class materials.

The Search for Material

Because my assignment was to produce a pathfinder of internet resources on the topic of Native America languages I limited my search for material to the Internet. I started by

searching a number of big search engines, *Yahoo, Alta Vista, Lycos, and Hot Bot*. On each of these sites I performed keyword searches using various combinations of terms "Native American , " American Indian," and "languages." I used keyword searches for these various terms because I knew that the Internet, unlike a library caatlog based on Library of Congress Subject Headings does not have an agreed upon vocabulary. I found that *Yahoo* produced the most productive material and that most the information available from them did use the term "Native American" rather than "American Indian." I continued with *Yahoo* because I liked having the option of using the search engine or subject tree or a combination of the two. *Yahoo* had subject listing for Native American Languages and also one for Language Policy. One of the sites that I located through *Yahoo* was the Society fort he Study of Indigenous Languages site. I found this site very helpful in doing my research. It was through material found at this site that I became aware of the areas of language policy and endangered languages.

Scope

My approach to this assignment was to try and provide my client with as broad an overview to the subject of Native American languages as was possible. In addition to providing access to information on specific languages I wanted to introduce potential users to the myriad of issues that surround Native American languages in the United States such as language policy, endangered languages, and educational issues. I tried as best I could to select sites that did not duplicate each other and which when used together would present the broadest overall introduction to the topic. I tried to select sites that were multifaceted and that could potentially lead users to the most useful information and which would continue to add new information as it is available.

The Criteria Used for Selecting Material for Inclusion and Evaluation of Sources

Because I was able to locate a lot of material on this topic I was very selective about what resources I selected for inclusion on my bibliography, and even more

selective when choosing sites for my final pathfinder. The sites that were selected for the final pathfinder had to be multidimensional. I tried not to have very much overlap. Sites were selected for their ease of use and comprehensiveness. Sites that were selected had to have identifiable authors, either individuals, or institutions, and had to have been revised, or at least verified within the last year. I preferred sites that were associated with academic or governmental institutions but there are exceptions to this ("The Language Policy Web Site and Emporium" for example). Sites included in the final pathfinder had to load quickly on my Macintosh Performa with a 14.4 modem using Netscape 1.12. I felt that it was unreasonable to assume that my clients would have access to state of the art equipment and thought that they might very well be using slower modems and older versions of Netscape, or other browsers, that are not frames compatible. If a page did not look, and operate to its fullest capacity on my system it was not included. That also means that if a site took more than a minute to load it was not included on the final pathfinder (I really hate waiting for big sites to load and usually find that they are overloaded with superfluous graphics and that there is no more information on them than faster sites).

Annotated Bibliography

Gibaldi, Joseph. *MLA Handbook for Writers of Research Papers*, 4th ed. New York: MLA , 1995.

1

Bureau of Indian Affairs. "U.S. Department of the Interior on the Web: Bureau of Indian Affairs." Last revised October 2, 1997. World Wide Web http://www.doi.gov/bureau-indian-affairs.html (October 12, 1997).

For better or for worse, The Bureau of Indian Affairs has a great deal of influence on the lives of Native Americans. Their website includes a complete list of Federally recognized tribes, maps of Indian lands, and most importantly, information on educational opportunities and grants.

2

Chambers, Tyler. "Human Languages Page." World Wide Web http://www.june29.com/ (October 12, 1997)

One of the oldest guide to language resources on the internet. Includes sections on Languages and Literature and Educational Programs and Institutes. Good Native American Languages section with links to individual language pages.

3

Crawford, James. "James Crawford's Language Policy Web Site & Emporium." Last revised October 11, 1997. World Wide Web http://ourworld.compuserve.com/homepages/JWCRAWFORD/ (October 12, 1997).

Crawford is an independent researcher and language policy watchdog who has published extensively on the subject of language policy. This site includes the full text of several articles by Crawford, most of which were originally published elsewhere, as well as links to further information on language policy.

4

ERIC. "AskERIC." Last revised September 1997. World Wide Web http://discovery.syr.edu/ (October 12, 1997).

This public access version of the educational database ERIC is searchable and contains a wealth of information that is especially useful to teachers. Types of information to be found here include sample lesson plans, curriculum guides, and information guides on a wide range of topics. Start with the Search ERIC and Research and Development sections. Some material is full text while some is abstract only.

5

Government Printing Office. "GPO Access." Last revised September 5, 1997. World Wide Web http://www.access.gpo.gov/su_docs/aces/aaces001.html (October 12, 1997).

The US government provides a huge amount of free information online for free. This site is searchable by database type and then by terms. Search the US Code database for the terms Native AND American AND Languages to get information on language policy, educational programs, and grants.

6

Leman, Wayne. "Links to Other Native American Language & Resources Sites." World Wide Web http://www.mcn.net/~wleman/links.htm (October 12, 1997).

Wayne Leman has authored a site on the Cheyenne language and this site is a link from that page. Lehman divides his links into languages, educational materials, bookstore, and policy issues. Very slow to load.

7

Marci, Martha J. "Native American Language Center." Last revised May 20, 1997. World Wide Web http://cougar.ucdavis.edu/nas/NALC/home.html (October 12, 1997).

The Native American Language Center is a project of the university of California at Davis. While this site does include a few links to other sources of information it is most useful for the information it gives about itself. The center's mission is to establish links between Native American language scholars and Native Americans in order to preserve Native American Languages. They operate an archive at UC Davis and fund a visiting tribal Scholar in residence program.

8

Mitten, Lisa. "Native Languages Page." Last revised October 8, 1997. World Wide Web http://www3.pitt.edu/~lmitten/natlang.html (October 12, 1997).

Site compiled and maintained by a librarian at the University of Pittsburgh. Many links to individual Native American language sites as well as to organizations. Updated frequently.

9

Society for the Study of the Indigenous Languages of the Americas. "Society for the Study of the Indigenous Languages of the Americas." World Wide Web http://trc2.ucdavis.edu/ssila/ (October 12, 1997).

Excellent overall source fort he study of Native American languages. Includes information on learning materials, journal articles on Native American languages, dissertation abstracts, and internet resources. Organized by subject or searchable.The most comprehensive site on the subject.

10

Strom, Karen M. "Native American Language Resources on the Internet." Last revised October 12, 1997. World Wide Web http://hanksville.phast.umass.edu/misc/indices/NA language.html (October 12, 1997).

Many resources listed. Organized by tribe/nation. Also includes links to other indigenous language sites. Good collection of links to resources dealing with language policy and endangered languages.

11

Sturtevant, William C. "Native American Tribes, Culture Areas, and Linguistic Stocks." Last revised February 6, 1997. World Wide Web http://www.ilt.columbia.edu/k12/naha/maps/nausa.html (October 12, 1997).

Clickable map of Native American language families. Designed for K-12. Part of a larger collection of resources on Native Americans for the use of students and teachers.

12

Summer Institute of Languages. "Summer Institute of Languages." Last revised September 19, 1997. World Wide Web http://www.sil.org/ (October 12, 1997).

Good general site to the study of linguistics but most especially the study of languages with small populations. One their online publications is "Ethnologue: Languages of the World." It gives a description of most of the worlds languages and identifies where each language spoken and the number of native speakers.

13

Terralingua. "Terralingua." Last revised September 30, 1997. World Wide Web http://cougar.ucdavis.edu/nas/terralin/elbiblio.htm (October 12, 1997).

A group dedicated to the preservation of endangered languages. Their website includes abstracts of papers presented at their conference, and links to material on endangered languages.

14

World Wide Web Virtual Library. "World Wide Web Virtual Library: Linguistics." Last revised September 29, 1997. World Wide Web http://www.emich.edu/~linguist/www-vl.html (October 12, 1997).

This site is part of the "World Wide Web Virtual Library", a subject tree type guide to internet resources maintained by the University of eastern Michigan. The linguistics site is broken down into several general and then increasingly specific subject areas. There are sections on "The Profession," "Research and Support," "Publication," "Pedagogy," and "Language resources." This last section includes "Languages & language families" with following links to Native American languages.

15

Yahoo. "Yahoo." World Wide Web http://www.yahoo.com (October 12, 1997).

This large commercial search engine allows users to perform simple or advanced keyword searches or use a well structured subject tree. If searching by keyword the search "Native AND American AND languages" produces 25 hits. The best subject tree is "Social Science: Linguistics and Human Languages: Languages: Native American Languages." All searches also give the user the option of continuing the search on "Alta Vista" another large commercial search engine.

Guide to Native American Language Resources on the Internet

There are many sources available on the internet for people interested in Native American languages. These sources are varied and cover individual languages, and issues which may be of interest to people doing research on Native American languages such as language learning, language policy, endangered languages, and language preservation.

Important terms you may wish to use in structuring your online searches include:

- Native American *or*;
- American Indian *or*;
- Indigenous *in combination with:*

- Language(s) *or*;
- Specific Language (for example Lakota) *or*;

- Language Policy *or*;
- Endangered Languages *or*;
- Language Preservation

Remember that you will need to conform to the specific syntax of the site that you are searching. Different search engines have different ways of combining words and searching for phrases. Try using the advanced search options whenever possible.

To Begin

Yahoo
http://www.yahoo.com/
This general search engine is a good place to start because it gives you the option of searching for terms or using a subject list. If you search you can combine terms by using AND or eliminate other common terms by using NOT. One subject list you may find useful is : Social Science: Linguistics and Human Languages: Languages: Native American Languages.

Two very good sites with lots of links to materials on specific Native American languages are:

Lisa Mitten's Native American Language Page
http://www1.pitt.edu/~lmitten/natlang.html
A well organized site with links to information on individual Native American Languages.

Native American Language Resources on the Internet
http://hansville.phast.umass.edu/misc/indices.NAlanguage.html
Very comprehsive collection of material. Links to specific languages as well as General language resources. Includes links to material on endangered languages.

Language and Linguistics

A tremendous amount of information on Native American Languages can be found through general linguistics resources.

The *World-Wide Web Virtual Library: Linguistics* **http://www.emich.edu/~linguist/www-vl.html**.
A general linuistics site rranged by subject. See especially resources on **Languages & language Families**.

Summer Institute of Linguistics
http://www.sil.org/
This site provides information all aspects of linguistics. See especially their **Ethnologue** a guide to the languages of the world including statistical information for each entry, such as number of speakers.

Society for the Study of the Indigenous Languages of the Americas (SSILA)
http://trc2.ucdavis.edu/ssila/
This is an excellent starting point for locating both print and internet resources on Native American Languages. SSILA's site provides links to dissertation and thesis abstracts, learning aids, and internet resources. Very comprehensive and well organized by subject.

Resources for Teachers

AskERIC
http://discovery.syr.edu/
This searchable database includes with a wealth of information for teachers including information guides, curriculum guides, and syllabi. Start with the Search ERIC database option and try using the terms listed at the beginning of this guide. Be as specific about the information you want as possible or you will be overwhelmed.

Language Policy

Many of the sources listed above will lead you to information on language policy as it pertains to Native American Languages but you may also want to search the following:

GPO Access
http://www.access.gpo.gov/su_docs/aces/aaces002.html
The best source of US government information and documents online. This searchable database includes the *Federal Register* and the *Code of Federal Regulations*. You may search more than one database at a time. Look especially at the US Code--the search "native AND languages" in this database will locate information on Federal language policy and grants.

James Crawford's Language Policy Website
http://ourworld.compuserve.com/hompages/JWCRAWFORD/
Full text articles on language policy as well as links to additional resources on the subject.

The *Bureau of Indian Affairs*
http://www.doi.gov/bureau-indian-affairs.html
Includes Office of Tribal Services and Office of Indian Education Programs.

Please ask a librarian if you need further assistance.

Questions on comments about this guide may be directed to Daisy Benson (daisy.b@mail.utexas.edu).

D.Benson October 22, 1997

Lee Bell

A Pathfinder for Introductory HTML Resources

LIS 382L.3

October 14, 1997

We humans need words to communicate. We form those words into sentence through either written or spoken language. Just like words are the basis for our communication, HTML (HyperText Markup Language) is the basic element of all web pages. It is the series of codes and tags that tell the computer to display the text in a certain way. For example, the <bold></bold> tags, tell the computer to show the text in **bold** font. One must learn HTML before anything else in creating pages for the internet. The amount of sources for HTML on the internet is overwhelming because HTML is an intregal part of the World Wide Web. Introductory HTML provides a basic framework for creating web documents such as basic tags for formatting text. Once one has learned basic HTML , she can move on to more fancy stuff like adding CGI scripts or image maps. For the purposes of this pathfinder I focused only on introductory material for HTML and sorted out most of those sources that offered information on advanced HTML and other elements of web pages. I attempted to find comprehensive tutorials of HTML that were well organized. I also wanted to find lists of links to many introductory HTML materials so that the clients could choose for themselves which tutorials to read. Lastly, although the clients specified that they wanted internet sources, I thought it might be helpful to find internet sources that had information about print resources just in case one of the students was interested in finding a book about HTML.

I began by using a comprehensive search page called Internet Sleuth [www.isleuth.com]. With Internet Sleuth one can search several other search engines at a time. The Internet Sleuth will allow a person to choose up to six

different searchable databases such as Yahoo!, Excite, HotBot, AltaVista and others to be searched simultaneously for a term. It will then display the top ten URLs for each search engine. I used the search term "beginner's HTML." Any search term with "HTML" in it is likely to yield thousands of hits because the computer language is so pervasive on the web. I hoped to narrow the results by specifying that the pages should be for beginners. Because I was able to search several search engines, I only used the Internet Sleuth. I eliminated sources in several ways. One, I did not include a source if it were unclear who authored it. At times I could not find a specific name, but I could usually find a sponsoring organization such as a university or non-profit organization. I also showed preference for those sources which included links to other pages rather than end pages. Although I am familiar with HTML, I did not want to make an overly judgmental call on which tutorials were more helpful. Instead, I focused on which internet sites were easily read and had updated links. Because there are so many sources that provide links to other pages, I attempted to find lists that did not have a lot of overlapping sources.

The clients are participating schools of the Four Directions Project which is a consortium of Native American reservation schools in ten states bound together by a mission to use new technologies to further education about their Native American heritage. The Four Directions Schools have chosen to use computers and the internet to help students both preserve their cultural heritage and reach far beyond the physical boundaries of schools to learn more. The clients specified that they were interested only in internet sources for the

pathfinder. Therefore, I did not use print sources that were available to me, (although they can often be helpful).

To cite the internet sources, I used the suggestions from "Brief Citation Guide for Internet Sources in History and the Humanities" by Melvin Page [http://www.umich.edu/~debate/research/cite.html] as accessed on October 5, 1997.

Annotated Bibliography

Note: the * denotes sources used in the pathfinder.

*1. National Center for Super Computing Applications "Beginner's Guide to HTML" [http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html] 9 October 1997.

The NCSA Beginner's Guide to HTML is probably the most widely listed Internet source for introductory HTML. Most pages with links to resources list the "Beginner's Guide to HTML."

2. "ULIX Guides to Writing HTML" [http://www.ul.ie/Help/HTML/index.html] 9 October 1997.

This is a listing from the University of Limerick of ten links for beginner HTML resources. Some of the titles seemed pretty helpful.

*3. One World Information Services "Writing HTML Documents"[http://oneworld.com/htmldev/devpage/dev-page1.html#doc-a] 8 October 1997.

This is a listing of links for getting started. It includes links for HTML standards. Further down the list there are links for how to do fancy stuff with HTML.

4. Bowling Green State University "HTML Tutors and Beginner's Guides" [http://www.bgsu.edu/departments/tcom/tutors.html] 8 October 1997.

This source comes from the Bowling Green State University Department of Telecommunications. There are lots of links to tutorials. It's an

excellent example of how many sources of HTML information come from university departments, but not necessarily computer science departments.

5. "Guides: to the Web, HTML, Applications..." [http://sun3.lib.uci.edu/~sclancy/guides.html] 8 October 1997.

   Some of the sources on this listing are for beginner's but many more of them are for advanced HTML. It could be a source that a person could go back to once she has learned the basics of HTML.

*6. "WWW HTML Resources" [http://www.hyperact.com/hyper10.html] 8 October 1997.

   This web pages is sort of a pathfinder in and of itself. I liked it because it has a listing of books available on the topic.

*7. Taylor, Chris "Beginner HTML-Links from the Mining Company" [http://html.miningco.com/msub1.htm] 8 October 1997.

   This page provides an annotated listing of resources judged to be helpful for beginner html. The Mining Company has multitudes of listings of internet sources.

*8. "Web Training Center" [http://www.dogtech.com/webcenter/training.htm] 7 October 1997.

   The Web Training Center has a long listing of links. Some not found anywhere else. Some are not necessarily to do with beginning HTML, but I thought they might be helpful.

*9. "Yahoo! Search Engine: Computers and Internet:Information and Documentation: Data Formats: HTML/Guides and Tutorials" [http://www.yahoo.com/computers_and_internet/information_and_documentation/data_formats/html/guides_and_tutorials] 9 October 1997.

   This is Yahoo! 's annotated index of HTML webpages. There is an option to go to the index for beginner's HTML, but this listing is a little more comprehensive. One favorite site is the Web Monkey.

*10. Case Western Reserve University "Introduction to HTML" [http://www.cwru.edu/help/introHTML/toc.html] 8 October 1997.

   This online course from CWRU covers most of the basics thoroughly and also has links to other HTML tutorials. This site is an excellent

example of how a person could take a course over the internet instead of buying a book.

*11. "The Unofficial Internet Book List" [http://www.savetz.com/booklist/] 8 October 1997.

This source is a bibliography of books about various computer topics. The links do not lead to an online version of the book, rather a page that gives author, title and price information for the book. Some of the information given comes from Amazon.com, the online book store.

12. Ragget, Dave and Arnaud LeHors "Hypertext Markup Language " [http://www.w3.org/MarkUp/MarkUp.html] 8 October 1997.

This source is not a good source for beginners because the language uses is a little too technical. It does have a lot of links for HTML, but none of them are really tutorials.

*13. "Creating Net Sites" [http://home.netscape.com/assist/net.sites] 8 October 1997.

Netscape's guide to authoring web pages is pretty useful and has links to tutorials not found on other pages.

*14. Wood, D. "Want to Make Your Own Home Page?" [http://w3.trib.com/~dwood/createpage.html]

This is a great listing of links for making home pages including beginning HTML and other resources such as clip art galleries and how to find a place on the web for your new page.

15. Jordan, Dianne H. "HTML and Web Design" [http://www.liii.com/~dhjordan/cis/htmlinfo.html] 8 October 1997.

This source seemed like it should be helpful at first because it comes from a Computer Information Systems department. Unfortunately, there were only six links. That number seemed a little too small to me.

*16. "HTML Style Sheets" [http://www.glassdog.com/design-o-rama/indesign.htm] 9 October 1997.

This tutorial from Design-o-Rama looks great and has ton of information!

Visitors to the site can read essays about the web as well as take a t
tutorial on how to write basic web pages. It is probably my favorite site.

HTML: it doesn't stand for How To Make Lollipops!
A Pathfinder prepared by Lee Bell

So, you've done all the surfing on the Internet you'd ever want to do and now you want to make your own stuff for people to see. How do you get started? Learn HTML. It stands for HyperText Markup Language and its the basic element of all web pages.

Other people want to see you make web pages, too so there are millions of web pages devoted to teaching you the basics of HTML. After you've learned the basics, you're ready to go!

Do I have to take a class to learn HTML?

Not at all! Some people claim you can learn HTML in as little as five minutes! While that may be an exaggeration, there are plenty of online tutorials you can visit. Here are two excellent examples.

1. **National Center for Super Computing Applications "Beginner's Guide to HTML" [http://www.ncsa.uiuc.edu/General/Internet/WWW/HTMLPrimer.html] 9 October 1997.**

2. **Case Western Reserve University "Introduction to HTML" [http://www.cwru.edu/help/introHTML/toc.html] 8 October 1997.**

3. **"HTML Style Sheets" [http://www.glassdog.com/design-o-rama/indesign.html] 9 October 1997.**

How can I find other tutorials for HTML on the web?

If you type in "beginner HTML" in any one of the search engines available on the web, you are likely to get a listing of almost ONE MILLION sources!! Don't want to scroll through them? The following are pages that have listings of HTML Guides and Tutorials.

4. **"Creating Net Sites" [http://home.netscape.com/assist/net.sites] 8 October 1997.**

5. Wood, D. "Want to Make Your Own Home Page?" [http://w3.trib.com/~dwood/createpage.html]

6. Taylor, Chris "Beginner HTML-Links from the Mining Company" [html.miningco.com/msub1.htm] 8 October 1997.

7. "Web Training Center" [www.dogtech.com/webcenter/training.htm] 7 October 1997.

8. "Yahoo! Search Engine: Computers and Internet:Information and Documentation: Data Formats: HTML/Guides and Tutorials" [www.yahoo.com/computers_and_internet/information_and_documentation/data_formats/html/guides_and_tutorials] 9 October 1997.

9. One World Information Services "Writing HTML Documents"[oneworld.com/htmldev/devpage/dev-page1.html#doc-a] 8 October 1997.

Do I have to read a whole book to learn HTML?

You don't have to read a book at all to learn HTML, but if you'd like to find one to have as a reference, there are some web pages that can point you in the right direction.

10. "The Unofficial Internet Book List" [www.savetz.com/booklist/] 8 October 1997.

11. "WWW HTML Resources" [www.hyperact.com/hyper10.html] 8 October 1997.

Good Luck!